Thanawat Lodkaew

Computer Science Student

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lodkaew.com

EDUCATION

M.Sc. in Computer Science, The University of Tokyo · 2022-Now
Supervisor │ Takashi Ishida

B.Sc. in Information Technology, King Mongkut's Institute of Technology Ladkrabang · 2016-2020
Supervisor │ Kitsuchart Pasupa
Thesis │ Hybrid Loss for Improving Classification Performance with Unbalanced Data
GPAX │ 3.76/4.00

JOB EXPERIENCE

Research Engineer (full-time), Kasikorn Labs, Thailand · 2020-Now
Supervisor │ Theerat Sakdejayont & Tawunrat Chalothorn
- Working on speech analytics

INTERNSHIP EXPERIENCE

Research Intern, Vidyasirimedhi Institute of Science and Technology, Thailand · 2019 Summer
Supervisor │ Supasorn Suwajanakorn & Nat Dilokthanakul
- Research topic: removing furniture in 2D room images using an image inpainting technique
- Contributed to a human-in-the-loop machine learning project
- Result: 1 journal paper

Internship Student, National Institute of Technology (Kurume College), Japan · 2018 Summer
Supervisor │ Yoshimitsu Kuroki
- Research topic: an improvement of the Saak transform using convex optimization on sparse representation

Internship Student, King Mongkut's Institute of Technology Ladkrabang, Thailand · 2017-2020
Supervisor │ Kitsuchart Pasupa
- Proposed a new loss function for learning from imbalanced data
- Developed a web platform that searches for clothing stores on Instagram by providing a product photo
- Proposed a computer-vision-based cow estrus detection system
- Result: 3 conference papers and 1 journal paper

AWARD AND HONOR

2020 · **First Class Honors** (Bachelor of Science), King Mongkut's Institute of Technology Ladkrabang, Thailand

2020	**Honorable Mention**, National Software Contest on Artificial Intelligence Track, Thailand.
2019	**Third Place**, IST – FR: Gateway to Informatics Research at EECi, Thailand
2018	**JASSO scholarship** for short-term study in Japan (80,000 yen/month), National Institute of Technology (Kurume College), Japan
2018	**Third Place**, National Software Contest on Artificial Intelligence Track, Thailand
2017	**Finalist**, International ICT Innovative Services Contest, Taiwan
2017	**Special Prize**, NAPROCK International Programming Contest, Japan
2017	**Finalist**, TechJam Competition on Data Science Squad, Thailand
2017	**Honorable Mention**, MUICT DataHack, Thailand

SKILL

Programming	Python, C/C++, C#, Java, LaTex, Matlab, OpenMP
Deep Learning	PyTorch, TensorFlow

PUBLICATION

Journal Article

[J1] **Thanawat Lodkaew**, Kitsuchart Pasupa, and Chu Kiong Loo. "CowXNet: An Automated Cow Estrus Eetection System." In: *Expert Systems with Applications* 211 (2023), p. 118550

[J2] Guntitat Sawadwuthikul, Tanyatep Tothong, **Thanawat Lodkaew**, et al. "Visual Goal Human-Robot Communication Framework with Few-Shot Learning: A Case Study in Robot Waiter System." In: *IEEE Transactions on Industrial Informatics* 18.3 (2021), pp. 1883–1891

Conference Proceeding

[C1] **Thanawat Lodkaew** and Kitsuchart Pasupa. "Hybrid Loss for Improving Classification Performance with Unbalanced Data." In: *Neural Information Processing: 27th International Conference, ICONIP 2020, Bangkok, Thailand, November 18–22, 2020, Proceedings, Part IV 27*. Springer. 2020, pp. 807–814

[C2] Kitsuchart Pasupa and **Thanawat Lodkaew**. "A New Approach to Automatic Heat Detection of Cattle in Video." In: *Neural Information Processing: 26th International Conference, ICONIP 2019, Sydney, NSW, Australia, December 12–15, 2019, Proceedings, Part V 26*. Springer. 2019, pp. 330–337

[C3] **Thanawat Lodkaew**, Weeruhputt Supsohmboon, Kitsuchart Pasupa, and Chu Kiong Loo. "Fashion finder: A System for Locating Online Stores on Instagram from Product Images." In: *2018 10th International Conference on Information Technology and Electrical Engineering (ICITEE)*. IEEE. 2018, pp. 500–505